## **NEVADA DIVISION OF ENVIRONMENTAL PROTECTION**

## FACT SHEET

(pursuant to NAC 445A.236)

**Permittee Name:** Bear's Best Las Vegas

11111 West Flamingo Road Las Vegas, Nevada 89135

**Location:** Bear's Best Las Vegas Golf Course

11111 West Flamingo Road

Las Vegas, Nevada 89135 - Clark County

Latitude: 36E 07' 16"N; Longitude: 115E 20' 14'W

Section 14, T.21 South, R.59 East MDB&M

Permit Number: NEV2002515

General: The Bear's Best Las Vegas Golf Course utilizes tertiary treated, nitrified, and partially denitrified, disinfected effluent for reuse irrigation. The effluent is supplied by the Desert Breeze Water Resource Center (DBWRC NEV2002509) of the Clark County Sanitation District (CCSD). The reclaim water is used for spray irrigation of the 100 acres of turf grasses on the tees, greens and fairways of the course, and for drip irrigation of areas of desert landscape and shrubs over approximately 97 acres scattered throughout the golf course. The DBWRC reuse water is blended in the effluent lake at Bear's Best with potable water provided and managed by the Las Vegas Valley Water District to provide the course with the adequate volume of water required. The relative percentages of potable and reclaimed water will vary with the seasonal irrigation demand. The lakes have ultra violet - ozonation aeration systems installed which provide a minimum of twenty turnovers of the lake in a 24-hour period to maintain lake clarity and water quality.

**Receiving Water Characteristics**: Groundwater in the vicinity of the course is approximately 800 feet below ground surface with groundwater flow direction to the east-southeast. The deep aquifer meets drinking water standards. Due to the depth to groundwater, monitoring wells at the course will not be required.

<u>Description of the Location of the Discharge</u>: This golf course has 18 greens, tees and fairways and the perimeter desert landscaping. The clubhouse located at 11111 West Flamingo Road, in Las Vegas, Clark County, Nevada, is situated between the two lined effluent storage lakes, # 1 and # 18. The main pump station at lake # 1 supplies irrigation water to the course; there is an 18" pipe that connects lake #1 with lake # 18. A second pump station serves as a booster pump station to deliver effluent to upper elevation golf course holes.

<u>Flow</u>: The permitted 30-day average flow is 1.43 MGD, with a maximum flow of 3.00 MGD which is the maximum anticipated amount for the hot summer months. Flows are measured at the reclaimed and the potable water metering vaults via six inch magnetic flow meters. The

blend of reclaimed and potable water is about 50-50.

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<u>Procedures for Public Comment</u>: The Notice of the Division's intent to issue a permit authorizing the facility to discharge to the groundwater of the State of Nevada subject to the conditions contained within the permit is being sent to the **Las Vegas Review-Journal** for publication. The notice is being mailed to interested persons on our mailing list. Anyone wishing to comment on the proposed permit can do so in writing for a 30 day period following the date of the public notice, by MM/DD/2007. the comment period can be extended at the discretion of the Administrator.

A public hearing on the proposed determination can be requested by the applicant, any affected State, any affected interstate agency, the Regional Administrator or any interested agency, person or group of persons. The request must be filed within the comment period, and must indicate the interest of the person filing the request and the reasons why a hearing is warranted.

Any public hearing determined by the Administrator to be held must be conducted in the geographical area of the proposed discharge or any other area the Administrator determines to be appropriate. All public hearings must be conducted in accordance with NAC 445A.238.

The final determination of the Administrator may be appealed to the State Environmental Commission pursuant to NRS 445A.605.

<u>Discharge Limitations</u>: As noted in Table I.1 below, the DBWRC provides the course with a high quality disinfected reclaim water to the golf course. The Total Coliform requirement is set at 2.2 CFU or MPN/100 ml, 30-day average. Therefore, in accordance with NAC 445A.277, CLASS A quality water does not require a buffer zone or control of public access.

**TABLE I.1: Discharge Limitations** 

<u>PARAMETERS</u>	EFFLUENT DISCHARGE LIMITATIONS		MONITORING REQUIREMENTS	
	30 Day Ave.	Daily Max.	Measurement Frequency	Sample Type
Flow:	1.43 MGD	3.00 MGD	Continuous	Flow meter
Total Coliform:	2.2 CFU or MPN/100 ml	23 CFU or MPN/100 ml	Weekly	Discrete
Total Nitrogen as N: (1)	Monitor and Report mg/L		Monthly	Calculate
Total Kjeldahl Nitrogen as N:	Monitor and Report mg/L		Monthly	Composite
Total Oxidized	Monitor and Report mg/L		Monthly	Composite

Nitrogen as N: (Nitrate + Nitrite)			
Ammonia as N:	Monitor and Report mg/L	Monthly	Composite
Total Nitrogen lbs/ac/yr	220 lbs/ac/yr See Part I.B.4.	4 <sup>th</sup> Quarter	Calculate

(1) Total Nitrogen as N can be reported as the sum of Total Oxidized Nitrogen and Total Kieldahl Nitrogen

CFU = Colony Forming Unit; MPN = Most Probable Number

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The quality of the effluent used by the Permittee may be reported as calculated values based upon the blend of treated effluent and Las Vegas Valley Water District (LVVWD) water.

Monitoring requirements may be satisfied by data collected by the Desert Breeze Water Resource Center and the LVVWD. Discharge Monitoring Reports are to be submitted by the Permittee. Copies of backup data or water quality calculation summaries are to be maintained at the golf course reuse site.

<u>Schedule of Compliance:</u> The Permittee shall implement and comply with the provisions of the following schedule of compliance after approval by the Administrator, including in said implementation and compliance, any additions or modifications which the Administrator may make in approving the Schedule of Compliance.

a. The Permittee shall achieve compliance with the discharge limitations upon issuance of the permit;

b. Any revisions to the Effluent Management Plan shall be submitted by a qualified professional to the Compliance Coordinator by March 30, 2008.

c. The Permittee shall provide the Division with the documentation and notification required by permit condition I.B.13., regarding cross-connection controls, **prior to use of reuse water.** 

Rationale for Permit Requirements: Reclaimed water monitoring is required to assess the level of treatment being provided by the DBWRC, to assess the quality of blended water delivered to the course by the LVVWD, to assess the management of recycled water usage, and to protect the local groundwater quality. Total Coliform and nitrogen species are required for monitoring the quality of reclaim water being applied, and for protection of human health and the environment.

<u>Determination</u>: The Division has made the determination to reissue the proposed permit for a five-year(5) period.

Prepared by: Icyl C.Mulligan, ES MS

October 2007

